NOTES:
1. The rock riprap shall meet IDOT requirements for
   Gradation No. _____, Quality Designation "A" or as designated
   by engineer.
2. Geotextile (non-woven, needle punched) Minimum criteria:
   Grab tensile strength (lb) ASTM D 4632__________202
   Elongation at failure (%) ASTM D 4632__________< 50
   Trapezoidal tear strength (lb) ASTM D 4533__________79
   Puncture strength (lb) ASTM D 6241__________433
   Ultraviolet light (% retained strength) ASTM D 4355____min 50
   Apparent opening size (AOS) ASTM D 4751__________
   max 0.22 mm (US sieve size 70)
   Permittivity sec⁻¹/ ASTM D 4491__________min 0.70
3. Any geotextile splices shall overlap a minimum of 18 inches, with
   upstream or upslope geotextile overlapping the abutting
   downslope geotextile.
4. Apron shall extend across the channel bottom and up the channel
   banks to an elevation one foot above the maximum tailwater
   depth or to the top of bank.
5. Rock thickness d shall be at least 1.5 times the riprap D₃₀₀ size.
6. Apron length Lₐ and rock riprap shall be sized according to
   Illinois Urban Manual Rock Outlet Protection standard 910
   minimum Lₐ = 10 ft.